## Practice: 642 - Water Well

**Scenario # 1 Large Diameter Drilled Well**

**Scenario Description:** **Missouri**

Typical construction is for the drilling of a well using a bucket well drill rig. These wells are large diameter drilled wells. The purpose of the practice is to provide water for livestock. An average well depth is less than 100 foot at 36" diameter. These wells are typically implemented in areas where the ground water resource has slow recharge rate, and the large diameter of the well allows for storage of water to meet the demand.

**Before Practice Situation:**

Livestock have insufficient water or are fenced from their water source.

**After Practice Situation:**

Sufficient water is available for livestock. Utilize Pumping Plant (533) and Pipeline (516) as associated practices. Use Critical Area Seeding (342) where necessary to prevent erosion following construciton activities.

**Scenario Feature Measure:**

No.

| Scenario Typical Size: | 48 | Foot | Tot Unit Cost | $135.40 |
|---|---|---|---|---|

| Cost Category | Component Name | Quantity | Unit | Unit Cost | Cost |
|---|---|---|---|---|---|
| Materials | Aggregate, Gravel, Graded | 4 | Cubic yard | $24.76 | $99.04 |
| Materials | Chlorine | 5 | Gallon | $2.32 | $11.60 |
| Equip./Install. | Rotary Drill Rig with Operator | 20 | Hour | $162.96 | $3,259.20 |
| Labor | General Labor | 8 | Hour | $21.56 | $172.48 |
| Mobilization | Mobilization, medium equipment | 1 | Each | $200.43 | $200.43 |
| Mobilization | Mobilization, General labor | 1 | Hour | $21.81 | $21.81 |
| Materials | Well Casing, Concrete | 40 | Foot | $56.04 | $2,241.60 |
| Materials | Well Casing, Concrete, perforated | 8 | Foot | $61.64 | $493.12 |
| | | | | Total Cost: | $6,499.28 |

**Payment types:**

| PayType | Unit Payment | PayType | Unit Payment |
|---|---|---|---|
| EQIP | $88.01 | EQIP-HU | $121.86 |
| EQIP-NOI | $101.55 | EQIP-HUNOI | $121.86 |
| EQIP-CCPI | $88.01 | EQIP-HUCCPI | $121.86 |

## Practice: 642 - Water Well

**Scenario # 2 Shallow Drilled Well, ≤ 100 feet**

**Scenario Description:** **Missouri**

Typical construction is for the installation of a well, in areas where sufficient water is known to occur within 100 feet of the ground surface. The well shall be drilled, dug, driven, bored, jetted or otherwise constructed to an aquifer for water supply. The purpose of the practice is to provide water for livestock.

**Before Practice Situation:**

Livestock have insufficient water or are fenced from their water source.

**After Practice Situation:**

An average well depth is 100 feet. Well casings are 12" in diameter. Casing is installed to a depth of 50 feet, and the additional length is lined. Sufficient water is available for livestock. Utilize Pumping Plant (533) and Pipeline (516) as associated practices. Use Critical Area Seeding (342) where necessary to prevent erosion following construciton activities.

**Scenario Feature Measure:**

No.

| **Scenario Typical Size:** | 100 | Foot | Tot Unit Cost | $49.11 |
|---|---|---|---|---|

| Cost Category | Component Name | Quantity | Unit | Unit Cost | Cost |
|---|---|---|---|---|---|
| Materials | Well Casing, Plastic, 12" | 50 | Foot | $55.15 | $2,757.50 |
| Materials | Well Cap, 12" | 1 | Each | $107.42 | $107.42 |
| Materials | Grout, cement | 2 | Cubic Yard | $79.78 | $159.56 |
| Materials | Chlorine | 1 | Gallon | $2.32 | $2.32 |
| Equip./Install. | Rotary Drill Rig with Operator | 10 | Hour | $162.96 | $1,629.60 |
| Mobilization | Mobilization, medium equipment | 1 | Each | $200.43 | $200.43 |
| Mobilization | Mobilization, Heavy Equipment Operator | 2 | Hour | $26.97 | $53.94 |
| | | | | Total Cost: | $4,910.77 |

**Payment types:**

| PayType | Unit Payment | PayType | Unit Payment |
|---|---|---|---|
| EQIP | $31.92 | EQIP-HU | $44.20 |
| EQIP-NOI | $36.83 | EQIP-HUNOI | $44.20 |
| EQIP-CCPI | $31.92 | EQIP-HUCCPI | $44.20 |

## Practice: 642 - Water Well

**Scenario # 3 Deep Drilled Well, > 100 Feet**

**Scenario Description:** **Missouri**

Typical construction is for the installation of a well, in areas where sufficient water is known to occur >100 feet of the ground surface. The well shall be drilled, dug, driven, bored, jetted or otherwise constructed to an aquifer for water supply. The purpose of the practice is to provide water for livestock.

**Before Practice Situation:**

Livestock have insufficient water or are fenced from their water source.

**After Practice Situation:**

An average well depth is 400 feet. Well casings are 4-6" in diameter. Casing is installed to a depth of 200 feet, and lining is included for the remaining depth where needed. Sufficient water is available for livestock. Utilize Pumping Plant (533) and Pipeline (516) as associated practices. Use Critical Area Seeding (342) where necessary to prevent erosion following construciton activities.

**Scenario Feature Measure:**

No.

| **Scenario Typical Size:** | 400 | Foot | Tot Unit Cost | $21.12 |
|---|---|---|---|---|

| Cost Category | Component Name | Quantity | Unit | Unit Cost | Cost |
|---|---|---|---|---|---|
| Materials | Well Casing, Plastic, 6" | 200 | Foot | $18.14 | $3,628.00 |
| Materials | Chlorine | 1 | Gallon | $2.32 | $2.32 |
| Materials | Well Cap, 6" | 1 | Each | $32.35 | $32.35 |
| Materials | Grout, cement | 2 | Cubic Yard | $79.78 | $159.56 |
| Materials | Well Screen, plastic, 6" | 40 | Foot | $11.52 | $460.80 |
| Equip./Install. | Rotary Drill Rig with Operator | 24 | Hour | $162.96 | $3,911.04 |
| Mobilization | Mobilization, Heavy Equipment Operator | 2 | Hour | $26.97 | $53.94 |
| Mobilization | Mobilization, medium equipment | 1 | Each | $200.43 | $200.43 |
| | | | | Total Cost: | $8,448.44 |

**Payment types:**

| PayType | Unit Payment | PayType | Unit Payment |
|---|---|---|---|
| EQIP | $13.73 | EQIP-HU | $19.01 |
| EQIP-NOI | $15.84 | EQIP-HUNOI | $19.01 |
| EQIP-CCPI | $13.73 | EQIP-HUCCPI | $19.01 |